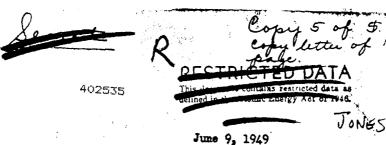


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Wra Bussell H. Ball, Chief Research Service Branch Atomic Energy Commission Berkeley, California

BEST COPY AVAILABLE Dear Mr. Balli

other missis brand to name writt In response to your letter of May 31 regarding field experimentation in biology and medicine during proof tests of atomic weapons, we will desire to conduct certain investigations; the exact nature of some of these studies cannot be predicted so far in advance. The following specific items are noted;

- 1. Studies are now being made of the nature of protection incurred by estrone administration against whole body radiation death. Current studies involve variations of estrone dosages and of radiation exposure and intensity. The mechanism of the protection may be considerably worked out by 1951, and if so, there will be protection schemes which should be tested in the radiation area of an Wheel detonation. Even at this time it would be helpful to know the relative protection given by estrone under these field conditions.
- 2. Search is being made to find a possible substance responsible for the indirect effect of radiation on nucleic adid metabolism. Assuming that this problem matures, we will want to identify and assay such substances from book irradiated animals.
- 3. General development of problems will take place over the next two years which cannot be predicted at this time.
- 4. We estimate that it would be advantageous to our research program to have a) two to four son in the experimental field area, b) laborathey space (150 square feet if possible, and c) facilities permitting the care, transportation and/or provision of 1000 to 2000 mice and rate.
- 5. Some of the following members of the staff possibly may wish to be present, and know of the availability of the experimental tests: J. H. Lawrence, R. L. Dobson, H. Pace, C. A. Tobias, H. B. Jones, and Hm. Siri.

Very truly yours,

Hardin B. Jo